

**APPARATUS FOR DETECTING AND TREATING TUMORS USING  
LOCALIZED IMPEDANCE MEASUREMENT**

**ABSTRACT OF THE DISCLOSURE**

An apparatus for treating tumors comprises an elongated delivery device that includes a lumen and is maneuverable in tissue. An impedance sensor array is deployable from the elongated device and configured to be coupled to at least one of an energy source or a switching device. The impedance array includes a plurality of resilient members, at least one of the plurality being positionable in the elongated device in a compacted state and deployable with curvature into tissue from the elongated device in a deployed state. In the deployed state, the plurality of resilient members defines a sample volume. At least one of the resilient members includes an impedance sensor and at least a portion of the array is configured to sample tissue impedance through a plurality of conductive pathways. An energy delivery device is coupled to one of the array, the at least one resilient member or the elongated device.